

THE CLAIMS

Having thus described the invention, what is CLAIMED is:

1. A saw frame assembly comprising: a generally planar frame including a back member having forward and rearward end portions; handle structure adjacent said rearward end portion of said back member and extending downwardly therefrom; a single, elongate arm member; and means for substantially nonremovably mounting said arm member on said forward end portion of said back member for pivotal movement between a first position, extending downwardly from said back member in confronting, coplanar, spaced relationship to said handle structure, and a second position extending generally along said back member, said arm member having a distal end portion, remote from said back member in said first position of said arm member, with a first pair of substantially transversely aligned blade-engaging elements on opposite sides thereof, taken with reference to a medial plane of said frame, and said forward end portion of said back member having a second pair of said transversely aligned blade-engaging elements on the opposite sides thereof; and a quick-release blade-tensioning mechanism mounted on said frame and including a movable member having a third pair of said transversely aligned blade-engaging elements on opposite sides thereof and being constructed to effect displacement of said movable member between blade-tensioning and blade-releasing positions, said handle structure of said frame having a cam bearing surface thereon, and said blade-tensioning mechanism comprising an operating member and a turnbuckle arrangement, said operating member having a cam element thereon disposed to engage said cam bearing surface and to cooperate therewith to effect such displacement of said movable member, said turnbuckle arrangement including a tension-adjusting link element that is readily

accessible for manual adjustment; said handle structure comprising a gripping component having a rearward surface portion, and said blade-tensioning mechanism including an operating lever pivotably mounted at a location spaced from said back member and comprising an arm portion that extends upwardly along and against said rearward surface portion of said gripping component in said blade-tensioning position of said mechanism, said arm portion being configured to cooperate with said gripping component to provide a hand grip for said saw assembly; each of said blade-engaging elements being constructed to engage one end of a removably mounted saw blade, one element of each of said pairs of blade-engaging elements lying substantially in a first lateral plane, disposed to one side of said medial plane, and being constructed to orient a mounted blade substantially parallel to said medial plane, and the other element of each of said pairs of elements lying in a second lateral plane, disposed to the opposite side of said medial plane, and being constructed to orient the mounted blade at a substantial angle to said medial plane, coplanar elements of said first and second pairs of blade-engaging elements in each of said first and second lateral planes being commonly disposed on an arc circumscribing the coplanar element of said third pair of blade-engaging elements; whereby said frame assembly can mount a saw blade, in either of two orientations, between said second and third pairs of blade-engaging elements for cutting within a relatively confined space, and can readily be converted to mount the blade between said first and third blade-engaging elements, with said arm member in said first position thereof, for cutting within a relatively unconfined space.

2. A saw frame assembly comprising: a generally planar frame including a back member having forward and rearward end portions; handle structure adjacent said rearward end portion of said back member and extending

downwardly therefrom; a single, elongate arm member; and means for substantially nonremovably mounting said arm member on said forward end portion of said back member for pivotal movement between a first position, extending downwardly from said back member in confronting, coplanar, spaced relationship to said handle structure, and a second position extending generally along said back member, said arm member having a distal end portion, remote from said back member in said first position of said arm member, with a first pair of substantially transversely aligned blade-engaging elements on opposite sides thereof, taken with reference to a medial plane of said frame, and said forward end portion of said back member having a second pair of said transversely aligned blade-engaging elements on the opposite sides thereof; and a quick-release blade-tensioning mechanism mounted on said frame and including a movable member having a third pair of said blade-engaging elements transversely aligned on opposite sides thereof and being constructed to effect displacement of said movable member between blade-tensioning and blade-releasing positions, each of said blade-engaging elements being constructed to engage one end of a removably mounted saw blade, one element of each of said pairs of blade-engaging elements lying substantially in a first lateral plane, disposed to one side of said medial plane, and being constructed to orient a mounted blade substantially parallel to said medial plane, and the other element of each of said pairs of elements lying in a second lateral plane, disposed to the opposite side of said medial plane, and being constructed to orient the mounted blade at a substantial angle to said medial plane, coplanar elements of said first and second pairs of blade-engaging elements in each of said first and second lateral planes being commonly disposed on an arc circumscribing the coplanar element of said third pair of blade-engaging elements; whereby said frame assembly can mount a saw blade, in either of two orientations, between said second and third pairs of blade-engaging elements for cutting

within a relatively confined space, and can readily be converted to mount the blade between said first and third blade-engaging elements, with said arm member in said first position thereof, for cutting within a relatively unconfined space.

3. The assembly of Claim 2 wherein said arm member and said forward end portion of said back member have abutment elements which cooperatively define a limit of said first position of said arm member, and wherein said arm member is substantially rectilinear.

4. The assembly of Claim 2 wherein said forward end portion of said back member defines an upwardly opening channel in which said arm member is disposed in said second position thereof.

5. The assembly of Claim 2 wherein each of said blade-engaging elements comprises a conical pin tapered toward and projecting from an orienting, blade-supporting surface.

6. The assembly of Claim 2 wherein said handle structure of said frame has a cam bearing surface thereon, and wherein said blade-tensioning mechanism comprises an operating member and a turnbuckle arrangement, said operating member having a cam element thereon disposed to engage said cam bearing surface and to cooperate therewith to effect such displacement of said movable member, said turnbuckle arrangement including a tension-adjusting link element that is readily accessible for manual adjustment.

7. The assembly of Claim 6 wherein said handle structure has a channel extending inwardly from a forward surface thereof to proximate said cam bearing surface, wherein said movable member is a block slidably received in a forward section of said handle structure channel, and wherein said turnbuckle arrangement is received within a rearward section of said channel, said handle structure

having an opening therein communicating with said channel thereof and providing such access to said link element.

8. The assembly of Claim 2 wherein said handle structure comprises a gripping component having a rearward surface portion, and wherein said blade-tensioning mechanism includes an operating lever pivotably mounted at a location spaced from said back member and comprising an arm portion that extends upwardly along and against said rearward surface portion of said gripping component in said blade-tensioning position of said mechanism, said arm portion being configured to cooperate with said gripping component to provide a hand grip for said saw assembly.

9. A saw frame assembly comprising: a generally planar frame including a back member having forward and rearward end portions; handle structure adjacent said rearward end portion of said back member and extending downwardly therefrom; a single, elongate arm member; and means for substantially nonremovably mounting said arm member on said forward end portion of said back member for movement between a first position, extending downwardly from said back member in confronting, coplanar, spaced relationship to said handle structure, and a second position extending generally along said back member, said arm member having a distal end portion, remote from said back member in said first position of said arm member, with a first pair of substantially transversely aligned blade-engaging elements on opposite sides thereof, taken with reference to a medial plane of said frame, and said forward end portion of said back member having a second pair of said transversely aligned blade-engaging elements on the opposite sides thereof; and a quick-release blade-tensioning mechanism mounted on said frame and including a movable member having a third pair of said blade-engaging elements transversely aligned on opposite sides thereof and being constructed to effect displacement

of said movable member between blade-tensioning and blade-releasing positions, said handle structure of said frame having a cam bearing surface thereon, and said blade-tensioning mechanism comprising an operating member and a turnbuckle arrangement, said operating member having a cam element thereon disposed to engage said cam bearing surface and to cooperate therewith to effect such displacement of said movable member, said turnbuckle arrangement including a tension-adjusting link element that is readily accessible for manual adjustment; each of said blade-engaging elements being constructed to engage one end of a removably mounted saw blade, one element of each of said pairs of blade-engaging elements lying substantially in a first lateral plane, disposed to one side of said medial plane, and being constructed to orient a mounted blade substantially parallel to said medial plane, and the other element of each of said pairs of elements lying in a second lateral plane, disposed to the opposite side of said medial plane, and being constructed to orient the mounted blade at a substantial angle to said medial plane, coplanar elements of said first and second pairs of blade-engaging elements being commonly disposed on an arc circumscribing the coplanar element of said third pair of blade-engaging elements; whereby said frame assembly can mount a saw blade, in either of two orientations, between said second and third pairs of blade-engaging elements for cutting within a relatively confined space, and can readily be converted to mount the blade between said first and third blade-engaging elements, with said arm member in said first position thereof, for cutting within a relatively unconfined space.

10. The assembly of Claim 9 wherein said handle structure has a channel extending inwardly from a forward surface thereof to proximate said cam bearing surface, and wherein said movable member is a block slidably received in a forward section of said handle structure channel and said turnbuckle

arrangement is received within a rearward section thereof, said handle structure having a lateral opening therein communicating with said channel thereof and providing such access to said link element.

11. A saw frame assembly comprising: a generally planar frame including a back member having forward and rearward end portions; handle structure adjacent said rearward end portion of said back member and extending downwardly therefrom; a single, elongate arm member; and means for substantially nonremovably mounting said arm member on said forward end portion of said back member for movement between a first position, extending downwardly from said back member in confronting, coplanar, spaced relationship to said handle structure, and a second position extending generally along said back member, said arm member having a distal end portion, remote from said back member in said first position of said arm member, with a first pair of substantially transversely aligned blade-engaging elements on opposite sides thereof, taken with reference to a medial plane of said frame, and said forward end portion of said back member having a second pair of said transversely aligned blade-engaging elements on the opposite sides thereof; and a quick-release blade-tensioning mechanism mounted on said frame and including a movable member having a third pair of said transversely aligned blade-engaging elements transversely aligned on opposite sides thereof and being constructed to effect displacement of said movable member between blade-tensioning and blade-releasing positions, said handle structure comprising a gripping component having a rearward surface portion, and said blade-tensioning mechanism including an operating lever pivotably mounted at a location spaced from said back member and comprising an arm portion that extends upwardly along and against said rearward surface portion of said gripping component in said blade-tensioning position of said mechanism, said arm portion being configured

to cooperate with said gripping component to provide a hand grip for said saw assembly; each of said blade-engaging elements being constructed to engage one end of a removably mounted saw blade, one element of each of said pairs of blade-engaging elements lying substantially in a first lateral plane, disposed to one side of said medial plane, and being constructed to orient a mounted blade substantially parallel to said medial plane, and the other element of each of said pairs lying in a second lateral plane, disposed to the opposite side of said medial plane, and being constructed to orient the mounted blade at a substantial angle to said medial plane, coplanar elements of said first and second pairs of blade-engaging elements in each of said first and second lateral planes being commonly disposed on an arc circumscribing the coplanar element of said third pair of blade-engaging elements; whereby said frame assembly can mount a saw blade, in either of two orientations, between said second and third pairs of blade-engaging elements for cutting within a relatively confined space, and can readily be converted to mount the blade between said first and third blade-engaging elements, with said arm member in said first position thereof, for cutting within a relatively unconfined space.